

**Amendments to the Claims:**

Please amend the claims as follows. This listing of claims will replace all prior versions of the claims in the application.

1. (Currently Amended) A computer-readable medium comprising software for a video surveillance system, comprising code segments for operating the video surveillance system based on video primitives, wherein the code segments for operating the video surveillance system comprise:

code segments for identifying one or more event discriminators;

code segments for extracting video primitives; and

code segments for extracting event occurrences from the video primitives using at least one of the one or more event discriminators.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for archiving the extracted video primitives.

5. (Previously Presented) A computer-readable medium as in claim 1, further comprising code segments for undertaking a response based on extracted event occurrences.

6. (Original) A computer-readable medium as in claim 5, wherein the response comprises initiating another sensor system.

7. (Original) A computer-readable medium as in claim 1, further comprising code segments for calibrating the video surveillance system.

8. (Original) A computer-readable medium as in claim 7, wherein the code segments for calibrating comprise code segments for self-calibrating the video surveillance system.

9. (Original) A computer-readable medium as in claim 8, wherein the code segments for self-calibrating comprise:

code segments for detecting as least one object in a source video; and

code segments for tracking the object.

10. (Original) A computer-readable medium as in claim 9, wherein the code segments for detecting at least one object comprise:

code segments for detecting at least one object via motion of the object; and

code segments for detecting at least one object via change in a background model.

11. (Original) A computer-readable medium as in claim 7, wherein the code segments for self-calibrating comprise:

code segments for identifying trackable areas; and  
code segments for identifying typical sizes of typical objects.

12. (Original) A computer-readable medium as in claim 7, wherein the code segments for calibrating comprise:

code segments for manual calibration;  
code segments for semi-automatic calibration; and  
code segments for automatic calibration.

13. (Original) A computer-readable medium as in claim 1, further comprising code segments for tasking the video surveillance system with event discriminators.

14. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one object.

15. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one spatial area.

16. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking comprise code segments for identifying at least one temporal attribute.

17. (Original) A computer-readable medium as in claim 13, wherein the code segments

for tasking identify at least one interaction.

18. (Original) A computer-readable medium as in claim 13, wherein the code segments for tasking identify at least one alarm.

19. (Original) A computer-readable medium as in claim 1, wherein the video primitives are from at least one of a video sensor and another sensor.

20. (Original) A computer-readable medium as in claim 1, wherein the video primitives are retrieved from an archive of video primitives.

21. (Original) A computer system comprising the computer-readable medium of claim 1.

22. (Currently Amended) A computer-readable medium comprising software for a video surveillance system, comprising:

code segments for identifying one or more event discriminators;

code segments for accessing archived video primitives; and

code segments for extracting event occurrences from accessed archived video primitives  
using at least one of the one or more event discriminators.

23. (Cancelled)

24. (Original) A computer-readable medium as in claim 22, further comprising code segments for undertaking a response based on extracted event occurrences.

25. (Currently Amended) A method comprising the step of operating a video surveillance system based on video primitives, wherein operating the video surveillance system comprises the steps of:

identifying one or more event discriminators;

extracting video primitives; and

extracting event occurrences from the video primitives using at least one of the one or more event discriminators.

26. (Currently Amended) A method comprising the steps of:

identifying one or more event discriminators;

accessing archived video primitives; and

extracting event occurrences from accessed video primitives using at least one of the one or more event discriminators.

27. (Currently Amended) An apparatus for video surveillance, wherein the apparatus is adapted to perform video surveillance based on video primitives, wherein the apparatus is adapted to:

identify one or more event discriminators;

extract video primitives; and

extract event occurrences from the video primitives using at least one of the one or more event discriminators.

28. (Previously Presented) The apparatus of claim 27, wherein the apparatus comprises application-specific hardware to emulate a computer and/or software.

29. (Previously Presented) A computer-readable medium as in claim 1, wherein event occurrences are extracted based on video primitives and non-video primitives.

30. (New) A computer-readable medium as in claim 1, further comprising code segments for identifying one or more event discriminators using a user interface.

31. (New) A computer-readable medium as in claim 1, wherein at least one event discriminator defines an interaction between one or more video primitives, between one or more spatial areas of interest, and/or between one or more temporal areas of interest.

32. (New) Application-specific hardware for performing video surveillance, the video surveillance comprising:

specifying one or more event discriminators for video surveillance;

extracting video primitives from a video; and

extracting event occurrences from the video primitives based on one or more event discriminators.

33. (New) Application-specific hardware as in claim 32, further comprising self-calibrating the application-specific hardware for performing video surveillance.

34. (New) Application-specific hardware as in claim 32, wherein event occurrences are extracted based on video primitives and non-video primitives.

35. (New) Application-specific hardware as in claim 32, wherein at least one event discriminator includes at least two of the following: an object, a spatial area, a temporal attribute, an interaction, and an alarm.

36. (New) Application-specific hardware as in claim 32, wherein at least one event discriminator defines an interaction between one or more video primitives, between one or more spatial areas of interest, and/or between one or more temporal areas of interest.